597 Adoption was fairly common, though not always of lasting
842 satisfaction. On the other hand, in this watery domain, the
855 trouble (lambàk) in raising children, mostly involving
845 ceaseless tending, was such that a childless woman was accorded a little surface envy as one who had missed or avoided a lot of trouble. The attitude towards twins was ambivalent. "Twins are unlucky because there are more mouths to feed, more labour, trouble, and not enough milk. With twins, a poor family will never rise again." "No one will marry a twin for fear of begetting twins." "If twins are of a different sex, one must die." Yet others considered twins lucky "because they could be nursed at the same time, and given the same things."

855 Wealth differences also affected these attitudes,
842 especially if babies came in close succession. Comments
184 heard were: "Why do poor people have more children than the rich?" "Many visitors come bringing gifts to a rich parturient because she is respected. No one likes to talk to a poor person." "Those who have a baby oftener than every 3 years will never be rich. Fortunately, 4 of my 7 children died." The increasing cost of raising children was a concern. In one of the few families that had plans for their children's education, the father underwent a vasectomy after his 3 fine children were born, because he "feared he would not be able to feed them all." His wife, reassured that the operation had not "hurt" her husband, "was glad he had done so."

847 Abortifacients and Contraceptives

[779] Episodes concerning abortifacients were whispered about both Muslims and Buddhists. A Buddhist who induced abortion was seen as impeding an individual's rebirth and disobeying a religious prohibition on taking life, tenets which did not obtain among the Muslims. Abortifacient medicines to be used with abdomen-pressing were quietly sold by Muslims.[6] "Unmarried Muslim girls use them mostly," reported one Buddhist, "and they almost die in the process." A Buddhist curer had similar expensive medicine, but "unlike the Muslims, he will
842 not destroy the baby." Chinese boat-vendors also carried contraceptive medicines (ya) which were secretly discussed by wives. A husband reported his wife as saying, "Old ways

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6. Fraser (193) reports that in the Muslim village of Rusembilan, abortions were openly practiced, (as if part of a Muslim cultural heritage).

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People used their knowledge of food properties to ameliorate their physical condition. During lactation, for instance, women ate vegetables or not "depending on the condition of the baby," for breast milk was very easily affected by adverse properties. In the broader context of general dietary needs, people entertained ideas about the suitability of certain foods to certain ages, sexes, occupations, conditions, and occasions (Hauch, et al: 47-50). Nevertheless, persons often risked an undesirable effect in food for pleasure. The proper banana variety for ritual use was the tiny klûai nâm, yet it was not planted much in Bang Chan because the people "did not like the taste." They substituted the "pleasant-tasting" klûai nâm mâ. Here orthodoxy came off second. The heat of alcoholic drink relished by men and older women often pressed the margin of safe temperature control. The cobra--turtle--or chicken--plus--alcohol feasts exemplified how readily the elders gambled even on the increment of sin from eating meat, or risked an over-heated temper, for the joy of eating such cherished delicacies.

Food dislikes, if temporary, reflected an imbalance of elements; if usual, an individual constitutional set of the person's elements. To eat disliked food was therefore positively harmful. To urge someone to eat disliked food was wrong.[16]

Illness

All illness, anxiety, and soul loss was caused by intrusions from outside the body. The intrusion might be from a supernatural source (rítthí:powerful) or natural (tâw thammadaa) (Textor:10) but in either case the result was the same: disruption of the elements. Anxiety, whether caused by a social situation such as fear of frustration, by a broken bone or by a fever, also was a disruption of balance. An attack by the supernatural disease missile, "lûuk"[17] gave rise to the classic symptoms of wind-excess: "a man cried all the time and had flatulency." Elements were also disorganized by spirit attack. The victim suffered hysteria, paralysis, flatulence, convulsion,

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16. Phillips (p. 61) reported that parents did not give their child a disliked medicine because "it offends him...; It is better not to give it to him than hurt his feelings."

17. This small shin missile invaded the body and then expanded to the size of a buffalo. Intentional attack (sorcery) might kill; accidental, merely poison (cf. Textor:110-177). Suspected thun was one of the few reasons why a family would authorize or grave a violation of the body of a deceased member as an autopsy.

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An old woman summed up significantly 2 attitudes saying, "In the old days people made more merit and so lived longer, but because we had no hospitals, the children died younger." The relation of good health and longevity to proper religious and moral behavior was fundamental in Bang Chan. If merit did not suffice, medical attention, traditional or modern, could not prolong life. Children, however, were tender (อ่อน) and easily prey to sickness.
• 855
Traditional care could help them, but being delicate and tender like city people, children could also be helped by modern hospital care.
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Between the 2 systems people sensed little conflict, for each patient made a preliminary diagnosis of his symptoms and sought the type of assistance his diagnosis and convenience indicated. [illegible] with some knowledge of both systems might offer their patients a choice of remedy. With the right diagnosis, magic, and medicines, a quick cure was expected. If not forth-coming, people were disappointed and moved to another specialist for his help. Modern medicine merely took its place as one more recourse.
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The basic handicap of modern medicine was that it had no magical resources or holy water. "Its effectiveness is limited to the properties of the ingredients." Old medicine on the other hand had, in addition to these properties, "the strength of the [illegible]'s incantation plus the power of every person who learned and used that incantation, back to the time of its discovery, centuries ago." Thus where the medical schemes offered the same specialty, as in fevers, bone-setting, or obstetrics, the old appeared to offer more resources.

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Besides its deficiencies in magic and strength-making attributes, modern medical care had other drawbacks. First, it was not accessible. A trip to Bangkok for medical purposes involved far more time than a day. Minburi's Health Center was a feasible trip, even for a woman in labor (stays ranged from 6 to 24 hours). Home arrangements for tending children, feeding buffalo, and other chores were less demanding. Bang Chan's eagerness for local modern care was shown when a Bangkok physician visited Bang Chan for a few times as part of a nutrition study. He was besieged with private requests for medical advice. Secondly, modern medical care was expensive. In Bangkok, after the expense of getting there, taxis, food, and housing costs for accompanying relatives, hospital, and doctor's fees sometimes meant losing the family gold and even land. Minburi's costs were closer geared to farm income, but medicines appeared costly. "Modern drugs taste and act better, but the poor have to use the old." Third,

What differences in circumstances existed that might affect nutritional level? On the one hand were relatively isolated nuclear families, which we estimated as 15-20% of the families, living in tiny separate cottages.[1] Usually with inadequate or no land, they earned an irregular income by hiring themselves out for farm or other work. At the other extreme, in a hamlet-like cluster of dwellings, lived a closely affiliated group of kin. A senior couple more or less headed the married sisters, brothers, or children, maybe with a hired man, or family that as autonomous households cooperated amicably in economic and domestic tasks. We estimated these as 20-25% of the Bang Chan families. The larger social unit, having more hands to produce, and to share tasks, was better able to provide good food and general health care to its members, than a small isolated family. Four problems more easily handled by the larger group were household chores and child-care, farming, borrowing, and earning money.

Young children had to be constantly tended lest they fall into the water, the fire, or under the buffalo's feet. They never entered the fields during work. Fishing and gathering of water plants was complicated because in boats, small children had to be held. Where there were but two parents and young children, one parent could not do many things until the other came home. Perhaps neither partner could stay away long enough to get a big batch of fish or greens from the canal, or go to the store. Cooking was simplified, or food might be prepared once a day only. Respite came only when the first born was able to help oversee a younger child, sometimes staying home from school to do so. Where the adult cooperative group was larger, movement was freer. All the strong adults could work in the fields or at a job, confident that the home was well tended. They came home to a well-prepared meal, ready when they wanted it. Such households had more fresh fish because farm work could be completed sooner, hence more persons could devote themselves to fishing. Some physically able members could even be spared and financed to go beyond the required four grades of elementary school.

Plowing could be done by a man and wife, but for both transplanting and harvesting which had to be done within a few days, large groups were necessary. Two patterns of auxiliary group labor prevailed: reciprocal cooperative work, and hiring of labor.

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1. Janlekha, 1955, categorized families as 9% "one-person," 59% nuclear, 8% limited extended (including one or more parents of a spouse), 27% extended (including dependent married couples or other collateral relatives), and the temple residents. At least 32% of the families had inadequate or no land. His figures do not indicate the degree of domestic cooperation which was an ameliorating factor in well-being.

expenditures by food groups is shown for the 11 families that participated in the dietary study.

Consumption of canned foods was negligible. Some canned fish and fruits were on sale at stores in the village, in 1952-53, but were seldom seen in homes.

Sweetened condensed milk, which was served in coffee sold at the stores, was occasionally bought for the children. On one occasion, a woman was seen buying milk diluted with hot water as a beverage. Among 526 records of food eaten by school children during 24 hour periods, milk appeared twice only, once with coffee. Dried milk, for infant feeding, was used occasionally. During 1952-53, several instances were noted in which dried milk, mixed with water, was used to feed an infant while the mother was at work in the field or engaged in vending, but we encountered one case only of an infant who was not breast fed. This was an infant whose mother died when he was five days old, and who was reared by grandparents.

Relatively few items of food were available at the village stores. In the inventory of the largest of the three stores in the village in 1948-49 (Sharp et al., 1953, pp. 211-212) the following items of food were listed: big dried chilies, shrimp paste, onion, garlic, fish sauce (fishsoy), salted fish, fresh chilies, limes, coconut, coconut oil[1], brown (palm) sugar, tea, coffee, condensed milk, orangeade and lemonade (carbonated), sweets, liquor, ingredients (including a lime paste) used together in betel chewing.[2]

New stock received in December by a local vender who kept a few items for sale at her house included mature green beans, black beans, peanuts, sweet potatoes, salted turnip, pickled garlic and tomato sauce.

Larger stores served as informal men's clubs where tea, coffee with condensed milk, and carbonated beverages were sold primarily for consumption on the premises. The proprietor of a new store, built in December 1952, sold no liquor.

We have no estimate of the amount of liquor sold in Bang Chan, although for those who drank it, its caloric value might be of significance.[3] About 9% of the householders interviewed

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1. Listed by Sharp et al. with non-food items, as much of it was burned in lamps.

2. Included here as food since some calcium may be obtained from this source.

3. One observer estimated the intake of certain village men who drank regularly as at least 2 oz. of rice liquor (20-35% alcohol) per day, representing about 100 calories. The estimated intake of women who drank regularly was about 1 oz. per day.

listed on 10 or more of the 24-hour dietary records obtained. For items which were major ingredients, the number of records on which the item appeared, is given.[1] Thus (1)plaa (1)thuu, which is bought by residents of Bang Chan during the busy work seasons, was used more often than any other single variety of fish named. Of the varieties caught locally, climbing perch, serpentheads, and silurus were most commonly used. Fermented fish, not included in the calendar, appeared on 53 records, and fish with kind not specified, on 180. Eggs were used more often than any animal food other than fish. Among green vegetables, swamp cabbage and (2)phag (2)ka-(2)cheed were commonly used. Bamboo shoots and lotus stalks were prominent among the non-leafy vegetables. Bananas which are grown in every garden and are available all year round were much the most common fruit, although other seasonal fruits were eaten more often in 6 of the 9 months in which school children submitted records.

Some idea may be obtained of peak seasons for use of various common foods by noting the months designed by x. Thus in January and May, serpentheads were listed on about 1/3 of the records, and were frequently served at more than one meal. Sweet potato, usually fried and eaten as a snack, was listed on 35 of 52 records obtained from school children in September. Flowers of the West India pea tree were listed on 10 of 55 records in October, and 12 of 88 in November, with occasional mention on records obtained in 4 other months.

Fruits were eaten much less often than one might expect in a tropical area where many varieties are available and fruit can be grown the year round. They were most often eaten by children as snacks, although pineapple and papaya were usually, and banana occasionally cooked in "with-rice" dishes such as curry. In September, fruit was included in the diets of less than 1/3 of the children. An average of more than one serving of fruit per child per day was recorded in 5 months only, May, June, October, November and February. In May, when (4)ma-(1)faj or rambai was in season 46 of 76 children reported having eaten it. Pineapple, listed by 35 of 61 children in June, was most often served in curry at one or more of the family meals. In October, oranges were eaten by 30 of 55 children who submitted records. Bananas (mostly of the (4)nam-(4)waa variety) topped the list in November and February.

Items mentioned on fewer than 10 records, and hence arbitrarily omitted from the chart, are worth noting as they

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1. No figures are given for sweet basil, garlic, onions, chili or limes, which were so often used in small amounts as seasoning that the count obtained would give no clear idea of the extent of their use. Some common spice plants were not mentioned on the records.

The observer often had
126 opportunity to make notes on foods eaten by various family
262 members. Two examples of these are included in Appendix A, p. 97.

Snacks

262 We have noted that various family members ate the morn-
264 ing meal, in particular, at different times, and that children
955 especially might eat leftover food between meals. Most Bang
Chan school children[1] ate snacks, which were usually different
from foods eaten at a regular meal. Doubtless most of these were purchased from one of the venders who were to be seen on the school grounds daily. Fruits and "desserts" were most commonly eaten, although a variety of other foods, not a part of the usual Thai meal, were also listed. Sweets were listed about 450 times on the 539 records obtained. Many of them had a base of rice, rice flour or glutinous rice with sugar, and included coconut, banana or other fruit. Some were made with legumes, and a few contained egg. Fried bananas, fried sweet potato slices, bananas or beans cooked in syrup, and bananas cooked in sweetened coconut milk were also listed. A few items such as ices, flavored syrup poured over shaved ice, and candies, had little nutrient value other than calorie content.

272 A glass of milk, and milk with coffee, were each listed
once. These might have been obtained at the store adjoining the school grounds. These instances are worth noting primarily because, although dried and tinned milks were obtainable, milk was seldom given to village children after weaning.

262 Many children were given a bit of cash each day, and
437 Janlekha (1955) commented that some children who did not have
855 any might barter an egg for snacks. One could tell fairly
[261] well from the children's records what the venders offered for sale on a given day. Some influence of season was apparent; thus ices and syrup over shaved ice were eaten more often during the hot dry season, and cooked foods such as fried Chinese noodles appeared primarily in the cool season.

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[120] 1. With the cooperation of teachers of the third and fourth grades in the Bang Chan elementary school, records of food eaten during 24-hour periods were obtained from children in these grades at intervals of about one month during the school year. This was a regular activity in the health class. A total of 539 records (from 1 to 8 for each child) were obtained from 75 boys and 72 girls. To facilitate recording, each child was given a sheet of paper, with spaces for his name, the date, and kinds of food other than rice, eaten at the morning, noon and evening meals, and as snacks. These records were collected primarily for information on meal patterns of village families for comparison with the limited sample in the dietary survey, and on seasonal use of various foods.

262 Some snacks, i.e. seasonal fruits, may have been picked from the home garden, and items such as lotus seeds were probably gathered wherever the children found them.

Comments on Foods Eaten by School Children

264 In addition to the high percentage of school children 266 who ate snacks, a conspicuous observation was that many ate 268 no regular lunch (Table 3). We did not ask the children to record when they ate snacks, but only what they ate. The number of snacks recorded by individual children did not, however, appear to be related to whether or not they had eaten lunch. For example, among the 76 children who provided 24-hour food records during May, 1953, the average number of snacks recorded by the 39 children who ate a regular lunch and the 37 who did not, was about the same, i.e. a little over three per child.

Table 3. Number and Percentage of Children Who Ate Snacks, and Who Missed Lunch, Arranged by Months in which Records were Obtained

Month[1]		No. of Records	Children who ate snacks		Children who missed lunch	
			No.	Percentage	No.	Percentage
May	1953	76	73	96	37	49
June	1954	61	56	92	32	53
July	1953	79	77	98	53	67
Sept.	1953	32	49	94	36	69
Oct.	1953	55	50	91	22	40
Nov.	1953	88	81	92	57	65
Dec.	1952	18	14	78	10	56
Jan.	1954	69	64	93	41	59
Feb.	1953	41	39	95	31	81
	Total	539	503	93%	321	60%

1. Note that although the figures are arranged by month, the records were obtained over a period extending from December 1952 through June 1954.

Most of the children who ate lunch regularly brought rice and some of the "with-rice" dishes prepared for a family meal in a lunch pail. Menus for breakfast and noon meals were often identical. Children who lived at a distance may have found it harder to carry lunch, especially when they had to walk to school, but the month by month record of the percentage of children who missed lunch (Table 3) does not indicate any clear seasonal trend. Even children who lived nearby might neither bring lunch nor return home during the noon recess. We were at the home of a school teacher, a short distance on foot from the school, when his two children returned in the afternoon. The mother said that they usually waited until after school to eat, but were having an snack on that day because for the first time, they had carried lunch to school.

Thorangkul (1957) examined all of the dietary records to note the frequency with which the following food groups occurred: protein-rich food, carbohydrate-rich food other than plain boiled rice, vegetables and fruits. She considered the records of each child as a unit; thus if a boy for whom 5 daily records were available, had recorded protein-rich food such as fish, eggs, or beans 16 times, he was regarded as having more than 3 "servings"[1] of such food per day. The frequency with which various food items occurred in the daily diets of these children is shown in Table 4.

Considering the day's record as a whole, some protein-rich food, usually fish, was included in the records of 97% of the children. Such protein-rich food appeared two or more times per day in the records of over 80% of the boys and about 90% of the girls. In contrast, no fruit was mentioned in the records of about 10% of the children, although fruit was one of the commonest snacks. Vegetables were not mentioned in the records of 10% of the boys and 17 of the girls. Only about one-fourth of the vegetables recorded were green or yellow.

For 75 children for whom we had 4 or more records, Thorangkul (1957), to obtain a rough estimate of the adequacy of the children's diets, grouped the records into three categories, based on the number of times protein-rich foods, vegetables and fruits appeared. On the average, children whose diets were placed in Class I had at least 3 "servings" of protein-rich food, 3 "servings" of vegetables and 2 of fruits. Diets in Class II included some from each of the food groups each day, but the items were recorded less frequently than in diets in Class I. Diets in Class III did not include foods from each of the food groups emphasized, each day. On this

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1. The term serving is used here to designate each time an item appeared in the daily food record. Thai do not have "servings" as the term is used in Western countries.

242 people did not want to spend much on a baby, therefore they
243 said that if a child ate too much "with-rice" he would be pot-bellied but thin in the upper part of the body, and that eating eggs would cause dental caries. This grandfather said he believed the truth to be just the opposite, but that goods things were expensive. As an illustration of the idea that thrift was the basis of restriction of "with-rice," one young mother said that an egg was regarded as equivalent to one (1)plaa (1)thuu (fish), and was enough for two persons. Sometimes one egg would serve an entire family. She said that a child would be punished if he ate a whole egg at a meal.

242 Secondly, Chutima suggests that particular foods were
243 associated with, or suitable for, particular age levels, and a given sex. Data obtained in Bang Chan indicate that certain foods were associated with conditions such as pregnancy, lactation, and the puerperium, with occupation, and even
833 socio-economic levels. For infants, breast milk was considered most suitable. The newborn infant was not usually put to the mother's breast for about 3 days after birth, and if a relative or neighbor did not nurse the infant, the small banana called (3)kluaj (4)nam-(4)wa (see p. 44), raw or baked, was crushed and fed to him before his mother's milk was available. This banana and rice, as (3)khaaw (3)tom and (3)khaaw (2)pia (two watery preparations), sometimes crushed with (3)kluaj (4)nam-(4)wa, were always the first solid foods introduced while the infant was breast fed. No other foods were introduced early. Some infants received fish and egg by 6 months of age, and a majority ate these foods by the time they were a year old. Some two year olds had not yet been given vegetables, and very few infants ate them before they were one year old.

• 835 Giving of "holy food"[1] to children suggests concern for
(7) strengthening children through dietary as well as other ritual means.

242 At the other end of life, as old age approached, the
243 diet was supposed to change, ideally to a completely vegetarian one. Since one was soon to face death, one gave up eating meat and even fish, if possible, so as to avoid taking life. It was considered pitiful or wrong for an old person to fish. Being able to go without food was associated with merit. Those who stayed overnight at the temple on the Buddhist holy day went without solid food from before noon until the next morning as the priests did. One elderly woman remarked that when she stayed overnight at the temple she did not feel hungry, and did not eat anything at night, but other women, feeling hungry, drank coffee or milk at night. She

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1. See p. 50.

FOOD IN CONNECTION WITH FESTIVITIES AND CEREMONIES

A discussion of food habits in Bang Chan would be incomplete without some description of ceremonies ((l)ngaan)[1] which dominate the village scene during the dry, post-harvest season. These events are of interest in connection with food habits because of 1) the prominent place that food occupies in them, 2) the cultural significance and relatively large cost, both of which must be taken into account in any plans for dietary improvement and 3) the possible influence of differences in food habits at the ceremonial season and of problems of sanitation incident to large-scale food preparation on the nutrition and health of village residents.

The season for ceremonies and festivities opened with the harvest rites to the Rice Goddess and closed with the beginning of Buddhist Lent in mid-July. The big occasions were cremations, ordinations into the Buddhist priesthood, weddings, and rites for cutting of the topknot[2] or homage-to-the-teacher.[3] Smaller family celebrations might mark such events as the raising and dedicating of a house, the return of a son from the army, or even public events such as the completion of a road or a bridge. Whatever the focal activity, a gala meal was served first to priests and then to guests.

Offering food to priests brought merit, which ensured happiness in later rebirths (see p. 9). Because the greater the number of priests served, the greater the merit, people were spurred to put on as large an affair as they could afford. Moreover, a person was judged throughout the community by the abundance and quality of the food served daily and at festivities. Thus, there was reason to make a (l)ngaan as opulent as possible, but celebrations of every degree occurred in Bang Chan, from lavish feasts to simple ceremonies.

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1. Significantly the same Thai word is used for work and for ceremony.

2. Topknots, formerly worn by all Thai children, used to be cut ritually at the time of puberty. In Bang Chan, the growing of a topknot had become primarily an attempt to improve a child's health. Few school age children wore topknots. They were usually cut earlier than puberty.

3. A person who had received specialized knowledge from a teacher gave thanks annually in a ceremony, to which those who had profited by this knowledge were obliged to come and/or contribute. Thus, all the patients of a traditional medical practitioner helped him to honor his teacher.

Few items used less frequently, the figures are correspondingly less than the usual amount eaten. Thus, sweet potato, which is represented as 18 grams per day per person in Group A, actually appeared on 3 records only. One family of 6 persons ate 1200 grams of sweet potato at one meal and a substantial amount later the same day. Most items appear on the lists for both groups, but sweet potato, sweet basil and bananas were included on the list for Group A only, and glutinous rice which is used as a sweet in this area, appears on the list for Group B only. Note that a few common foods account for most of the nutrients in the diets of both groups. These common foods account for only about 80% of the calcium and vitamin A value and slightly less of the ascorbic acid in the diets of Group A. The list for Group B accounts for about 70% of the calcium and 60% of the ascorbic acid in the diets of this group. The variety of green leaves used once or twice only on survey days by Group B, and the number of different seasonal fruits used by both groups in small amounts as snacks, probably account for this.

Contribution of Snacks to the Nutrient Content of Diets.- On the average, 4 out of 5 children had some snack per day, whereas only one adult in 6 did so. The following items appeared most commonly: glutinous kinds of fruit, 40 times (orange 7, banana 6, pineapple, watermelon and mango each 5 times, guava, jujube and Manila tamarind each 2 times, olives, rambutan, rambai, star gooseberry, (2)ta-(1)kao and Thai nutmeg each once,) coconut and bread each 13 times, glutinous rice 8, mung bean 7, truffles 6, products made of rice flour 6 times, and a variety of other items including rice noodles, sweet potato, taro, bean sprouts, lotus stalks, lotus seeds, popcorn, products made of cassava flour, sugar cane, pork and milk from 1 to 4 times each. Salt, and/or palm sugar were eaten with a number of the snacks. Although they contributed only about 2% of the total calories, and from 1 to 3% of most nutrients, snacks contributed 16% of the total ascorbic acid for Group A and 11% for Group B.

Seasonal Variation in Food Preparation, Meal Patterns, Food [illegible] and Current Value of Food Eaten

In Table 14, a summary including the number of meals prepared, time spent in meal preparation, number of "with-rice" dishes, and cash expenditures for food is given by rounds, for families in each group.

Number of Meals Prepared. - Food was cooked twice on each survey day in 3 of 6 households in Group A and 3 of 5 households in Group B. Heavy farm work or vending which kept the mother away from the house sometimes accounted for once-a-day food preparation. One housewife who took food to market in Bangkok, cooked food twice a day only during the period shortly before the birth of a child, when she was not vending.

[Text continues on page 78 --- Analyst]

[illegible] takes it down the steps to the fish pond, where she swishes the basket around to wash the fish, and rinses her hands at the same time.

There are some hazards to the food---chickens trying to get at the edible part of fish while the niece cleans it (she leaves the scales, etc. for them to eat); cat and kittens in the kitchen, having to be driven away from the grated coconut and coconut milk, and getting an occasional unweighed nip. Whether we start to weigh food for the evening meal or a.m. meal, some cooked foods are apt to be used, either left over from a previous meal, or cooked in advance. This a.m., for example, buffalo meat, already cooked (but not weighed before cooking) was used, and (3)chili-(2)leg leaves, which HH weighed last night. These latter were cooked last night, to reduce bitterness, then put into curry today.

Description of Food Preparation Area in a [illegible] Relatively Poor Household

Wednesday, May 27, 1953

Arrived about [illegible] a.m. While other food was being prepared, the 11-year-old son came in with a package of salted white radish and a small milk tin with some coconut oil which had just been bought. This is the house which we found flooded when they sent for us to see the baby last fall. The roof seems to be well thatched. The floor is not wet after last night's downpour. The bed platform, in one corner, is about 8 x 10 feet. The baby's cradle hangs above it. In the opposite corner is a shelf where utensils are kept. Some food, in paper bags, is in a basket hung from the roof. Fresh fish is kept in a jar of water until needed. The stove is on a small mound of earth, and further elevated on a small box (just big enough for the stove) filled with earth.

We sit on a mat, spread on the mud floor, with the scales, plastic bowls and waxed paper ready for weighing food. The children lie on a mat nearby. In the house is a fresh mound of earth, a small straw bin with rice, and various pieces of equipment.

Notes on Meal Service

In a Relatively Prosperous Household

Friday, May 22, 1953

Before breakfast is served, the six-year old girl comes with a piece of jack fruit. SS weighs it and tells her to bring back what she does not eat. Later she comes with hands full of stones (14 of them). She has eaten this much as a "snack" before the regular meal. The grandmother finishes the piece (7 stones) and gives the rind to SS to weigh.

At breakfast the family sits in a circle on the kitchen floor. Each person except the baby has his own bowl of rice before him. In the center of the circle, within reach of all, are four small dishes of "with-rice" which has been prepared for breakfast: sour curry of buffalo meat, curry of (3)khii-(2)leg leaves, bean sprouts and one small fried fish. The mother takes a very small bit of fish on a spoon with rice, and feeds baby. During breakfast baby has 6 bites of rice with fish, nine small spoonfuls of rice with sour curry. The mother herself eats one bite of fish. She takes four spoonfuls of sour curry on plate with rice. This is shared with baby. Mother and baby eat mainly rice, fish and sour curry of buffalo meat, whereas grandmother and the six-year old girl have curry of (3)khii-(2)leg leaves and bean sprouts with their rice.

In a Relatively Poor Household

Wednesday, May 27, 1953

While the mother finishes the meal preparation, the seven-year old girl feeds the baby, first rice with some chopped egg, then rice with the "water" from the egg. The mother remarks that she cannot cook unless someone looks after the baby.

Technique of eating -- A tray with the "with-rice" is set out, also a bowl with water, for rinsing the hand, and a basin or bowl with drinking water. There are spoons in the "with-rice," but these seem to be used for taking some of the juice, which may be eaten directly or put on the individual's bowl of rice. Solid pieces are taken from the serving dish by hand, and mixed with some of the rice, which is then picked up in the right hand. Occasionally the person eating will rinse his hand with water. When finished, each person rinses his bowl (using either water from the bowl nearby, or from the general supply -- in this case the canal). Dishes are turned upside down on the platform near the stove, to dry.

2: Hauck et al. D.E-9 (1992-1994) 1994 AO7 Central Thai AO7 Baeg Chan

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Examples of Diet Records Submitted by School Children

Date	Breakfast	Lunch	Dinner	Snack
	Diet Record[1] of 10-year Old Girl: Diet Class I[2]			
May 19, '53	Sour curry of (2)phag (2)ka-(2)cheed Curry of swamp cabbage Boiled vegetables Fried mushrooms Roasted pilot fish Chili sauce		Cooked fish (sour) (2)phag (2)ka-(2)cheed Chili sauce	Star gooseberry Jack fruit seeds Fruit of egg tree Sweet made of flour, sugar, coconut milk Sweet made of flour, sugar, sugar palm
July 7, '53	Curry of (2)phag (2)ka-(2)cheed Boiled swamp cabbage	Boiled fish Boiled fermented fish	Boiled egg Roasted fish	(1)lum-(1)laj (Fruit of Euphoria longana) Jack fruit seeds Sweet made of flour and sugar
Sept. 13, '53	Cooked climbing perch and other fish (sour)	Fried towel gourd with pork Fried serpent-head	Boiled climbing perch and silurus	Sweet made of flour, sugar and coconut milk Hog plum
Oct. 29, '53	Sour curry of natural flowers with (2)phag (2)ka-(2)cheed Fried pork with swamp cabbage	Hot curry of serpenthead (2)phag (2)ka-(2)cheed Chili sauce	Sour curry of lotus stalks	Jack fruit seeds Fried banana Jambean

Examples of Diet Records Submitted by School Children (cont.)

Date	Breakfast	Lunch	Dinner	Snack
Nov. 25, '53	Curry of lotus stalks Fried salted fish (2)phag (2)ka-(2)cheed Chili sauce	Curry of swamp cabbage Fried salted fish	Roasted salted fish Curry of (2)phag (2)ka-(2)cheed	Orange Fried banana Sweet made of flour, sugar, coconut and corn Sweet made of flour, sugar, egg and coconut
Jan. 30, '54	Sour curry of (2)phag (2)ka-(2)cheed with natural flowers	Sour curry of green papaya	Fried sweetened fish	Jack fruit seeds Rice flour chips Sweet made of flour, sugar, coconut, corn
June 4, '54	Fried fermented fish Curry of egg plant Cooked salted pork	Fried egg Salted crabs	Curry of pineapple Curry of chicken Curry of bamboo shoots	Star gooseberry Ice Sweet made of flour, sugar and coconut milk Sweet made of flour, sugar and coconut

Diet Record of 12-year Old Girl: Diet Class III

Feb. 14, '53	Hot curry of fish Fried dried meat with sugar		Sour curry of swamp cabbage	Sweet made of rice, banana and coconut milk
July 7, '53	Curry of chicken		Curry of white gourd	Longan

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Examples of Diet Records Submitted by School Children (cont.)

Date	Breakfast	Lunch	Dinner	Snack
Sept. 13, '53	Curry of (3)khli-(2)leg		Curry of chicken	Fried sweet potato Star gooseberry Hog plum
Oct. -- '53	Sour curry of green papaya Fried swamp cabbage		Hot curry of fish	Guava Sweet made of dried beans and sugar
Nov. 28, '53	Fried Chinese noodles Boiled vegetables Chili sauce		Fried fish Boiled vegetables Chili sauce	Fried banana Fried Chinese noodles Sweet made of rice, banana and coconut milk
Jan. 30, '54	Beef curry		Sour curry of swamp cabbage	Chinese cake Jujube Sweet made of flour, sugar, coconut and corn Sweet made of dried beans and sugar

1. "With-rice" dishes only are listed for breakfast, lunch and dinner.

2. Adapted from Thoranghul (1957).

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284 278 medications were taken internally, sometimes being painted on the tongue with a feather; but two preparations were applied over the abdomen. Some of the medications were described as "stomach medicine" or "to prevent flatulence." Five different kinds of proprietary medicine were given to 18 infants. In 13 instances, the medicine given was clearly homemade and included as major ingredients items such as flattery fruit, (3)luag (1)yanau; cobra oil; horseshoe crab; and buffalo skin. The nature of the medicine, whether homemade or proprietary, was not clear in 8 instances. Usually medicine for infants was mixed with honey, but in 2 cases, alcoholic liquor was used as it customarily was for the mother.

Six newborn infants in this series were given no medicine. One of these was born at the Health Center. One of the other 3 infants delivered at the Health Center was given homemade medicine later, and no information was obtained on the third. Eye prophylaxis[1] was probably routine at the Health Center, as, in 2 of the 3 cases delivered there, informants knew that drops had been put in the infant's eyes. Traditional midwives, however, did nothing of this sort.

Water for Drinking and Bathing.

853 312 For the newborn infant as well as for the mother, water for drinking and bathing was boiled and was usually used while hot, often being kept warm in a vacuum bottle. Either rain water or canal water might be used depending on what was available at a given season. The water was dribbled from an adult's fingers into the infant's mouth. When the mother was no longer lying by the fire, boiled water was not considered essential for the infant. Nevertheless, over half the infants seen from this time up to 3 months of age were being given boiled water to drink. After 6 months of age this was rare.

851 • 855 312 In one instance, during the time when a younger sibling received boiled canal water, a 21-month old child was given boiled water also. At the time of a later visit both of these children were drinking unboiled canal water. In another case an orphaned boy's formula was made up with boiled water, although

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744 754 781 1. Vaccination for smallpox was the only modern preventive treatment which we knew to be used in Bang Chan in the absence of an epidemic. Since a severe epidemic of smallpox with many deaths ten years previously, health officers came to the Bang Chan elementary school once a year to vaccinate children, and other residents of the community could be vaccinated at this time. Four of the young children whom we visited periodically were vaccinated, at 4 months, 8 months, 1 and 2 years of age, respectively.

he was given untreated canal water to drink. One young mother gave boiled water to her 18-month old infant for a few days when the baby had diarrhea though no questioning she said no one had told her to do this. (The fact that boiled water was used for newborn infants and their mothers may have suggested the procedure to her.) Among the infants who received boiled water for a longer time than most, 6 were children of school teachers.

Early Feeding Practices.

Breast feeding was usual in Bang Chan, but most babies were not put to the breast until the second or third day or even later (Table 1).

Table 1. INITIATION OF BREAST FEEDING BY THE MOTHERS FOR 36 INFANTS IN BANG CHAN.

Post natal day	Number of infants
1	1
2	11
3	22
4	2
5	0

As previously noted, no association was apparently made between putting the baby to the breast and establishing the milk flow.

In this series, 9 infants were nursed by a relative or neighbor one or more times before the mother's milk supply was established. Five of these infants had breast milk on the first day, 2 on the second, and 2 on the third. Choice of a woman who was a good milk producer to give the infant its first milk feeding was considered auspicious. The procedure was primarily of ritual significance.

Three infants were given cow's milk (diluted, condensed, or dried milk) before being put to the breast.

About half the infants received no food other than boiled water and milk while the mother lay by the fire. Honey was given with boiled water to about one-third of the infants, and about one-fourth had crushed banana, sometimes in addition to honey. When given, these foods were started before breast feeding was established. Either raw or baked, a small, rather flavorless variety of banana, (3)kluaj (4)nam-(4)wa, was used. We observed a grandmother dipping her fingers into a bowl of water, then crushing a bit of banana between them and poking this into the infant's mouth. The infant was given as much as he would take, usually about half of a banana at one time. Banana might be fed from one to three times per day.

Table 3. Food Intake Other Than Milk of 22 Infants From 6 to 8 1/2 months Old.[1]

No. of Infants	No. of Food Items	Number of Infants Fed Food Items Other Than Milk: Rice	Bananas	Other Fruit	Fish	Egg, Meat or Poultry	(2)Vegetables (3)Vegetables
1	0						
10	1	9					1
10	2	10	10				
4	3	4	4			3	1
3	4	3	3		3	3	2
1	5	1	1	1	1		1
3	6	3	3	3	3	3	3
Total	[illegible]	29	9		3	4	2
22	F	1	6	1	1	3	3
	O		3	3	3	1	3

1. The nearest half month marked the dividing point between age groups. Thus an infant 6 months 20 days old would be considered as 6 1/2 months old and one 6 months 23 days old would be considered as 6 months old.

2. D = daily, F = frequently (at least once a week), and O = occasionally (at longer intervals).

[264] 12 and 14 1/2 months of age were given egg daily, and almost all had egg either frequently or occasionally. About half the babies of this age were fed poultry or meat occasionally, but neither of these items was common to the family diets observed in Bang Chan (Hauck et al., 1958; Hauck and Hanks, 1959). At this age only 1 of 41 babies was given green vegetables daily, and less than one-third of them had vegetables of any kind even occasionally (Table 4).

264 262 As the children grew older they had vegetables more frequently, so that between 18 and 20 1/2 months of age almost half of the children ate vegetables at least occasionally (Tables 5 - 8). A few two-year old children had never had green vegetables; for many, even at this age or older, vegetables of any kind were occasional rather than frequent items of diet.

[274] Of the 23 children between 21 and 24 1/2 months of age for whom we had records, 5 were still being breast fed, and one (the orphaned child) continued to receive imported cow's milk diluted with boiled water. All drank untreated canal or rain water according to the available supply. All were fed rice cooked in the usual manner, but one still had soupy undrained rice at times.

[See p. 20 - Hauck et al.] [See p. 21-22 - Hauck et al.]

Table 5. Food Intake Other Than Rice of 11 Weanling Babies From 15 to 17 1/2 months Old.[1]

No. of Infants	No. of Food Items	Number of Infants Fed Food Items Other Than Rice				
		Fish	Egg, Meat or Poultry	Fruit	Vegetable	(2)Cheese (3)Cream
1	3	1	1			
6	4	6	6	6		6
4	5	4	4	4	4	4
Total	D[2]	10	3	3	1	3
11	F		3	7		2
	O	1	4		3	5

1. The nearest half month marked the dividing point between age groups. Thus an infant 17 months 20 days old would be considered as 17 1/2 months old and one 17 months 23 days old would be considered as 18 months old.

2. D = daily, F = frequently (at least once a week), and O = occasionally (at longer intervals).

Table 6. Food Intake Other Than Milk and Rice of 30 Babies 15 to 17 1/2 months Old.[1]

No. of Infants	No. of Food Items	Number of Infants Fed Food Items Other Than Milk and Rice				
		Fish	Egg, Meat or Poultry	Fruit	Vegetable	(2)Cheese (3)Cream
1	1	1				
1	2	1				1
3	3	3	2	1		3
12	4	12	12	12	1	11
13	5	13	13	13	13	13
Total	D[2]	33	2	2	1	10
30	F	4	11	16	2	9
	O	3	15	8	11	8

1. See Footnote 1, Table 5.

2. See Footnote 2, Table 5.

Table 7. Food Intake Other Than Rice of 14 Weanling Babies From 18 to 20 1/2 months Old.[1]

No. of Infants	No. of Food Items		Number of Infants Fed Food Items Other Than Rice			
		Fish	Egg, Meat or Poultry	Fruit	Vegetable	(2)Kha-(5)pom
2	3	2		2		2
4	4	4	3	4	1	4
8	5	8	8	8	8	8
Total 14	D[2]	11	2	1	2	8
	F	3	6	8	1	5
	O		3	5	6	1

1. The nearest half month marked the dividing point between age groups. Thus an infant 20 months 20 days old would be considered as 20 1/2 months old and one 20 months 23 days old would be considered as 21 months old.

2. D = daily, F = frequently (at least once a week), and O = occasionally (at longer intervals).

Table 8. Food Intake Other Than Milk and Rice of 18 Babies From 18 to 20 1/2 months Old.[1]

No. of Infants	No. of Food Items		Number of Infants Fed Food Items Other Than Milk and Rice			
		Fish	Egg, Meat or Poultry	Fruit	Vegetable	(2)Kha-(5)pom
3	3	3	2	1		3
9	4	9	9	9		9
6	5	6	6	6	6	6
Total 18	D[2]	14	1	3		7
	F	3	11	5		7
	O	1	5	8	6	4

1. See Footnote 1, Table 7.

2. See Footnote 2, Table 7.

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Table 9. Food Intake Other Than Rice of 17 Weanling Babies From 21 to 24 1/2 months Old.[1]

No. of Infants	No. of Food Items		Number of Infants Fed Food Items Other Than Rice				
			Fish	Egg, Meat or Poultry	Fruit	Vegetable	(2)Kha-(5)nom
6	4		6	6	6	1	5
11	5		11	11	11	11	11
Total		D[2]	16	1	2	3	7
17		F	1	8	6	1	3
		O		8	9	8	6

1. The nearest half month marked the dividing point between age groups. Thus an infant 24 months 20 days old would be considered as 24 1/2 months old and one 24 months 23 days old would be considered as 25 months old.

2. D - daily, F - frequently (at least once a week), and O - occasionally (at longer intervals).

Table 10. Food Intake Other Than Milk and Rice of 6 Babies From 21 to 24 1/2 months Old.[1]

No. of Infants	No. of Food Items		Number of Infants Fed Food Items Other Than Milk and Rice				
			Fish	Egg, Meat or Poultry	Fruit	Vegetable	(2)Kha-(5)nom
6	6		6	6	6	6	6
Total		D[2]	5				3
6		F	1	4	3		2
		O		2	3	6	1

1. See Footnote 1, Table 9.

2. See Footnote 2, Table 9.

Fish, fresh, dried, or salted, depending on the family fare, was a regular part of their diet (Tables 9, 10). One had egg daily, and 10, frequently; but for more than half of them egg, as well as meat or poultry, was an occasional item of diet. All were fed (2)kha-(5)pom, and almost half had something in this class of foods daily. Only three had green or other vegetables daily and 5 never ate them. Bananas of the (4)nam-(4)waa variety were eaten by all, but only one had banana daily while more than half had them only occasionally. Four were sometimes given bananas other than (4)nam-(4)waa, the variety which was considered safe for infants and invalids. Two had never had other fruit, but most children of this age were occasionally given other seasonal fruit. The variety of foods other than milk given to these children did not appear to depend on whether or not they had been weaned (Tables 5 - 10).

Weaning.

Some of the children in this series had been weaned before our observations were started, and 19 had not been weaned when last visited. For 30 children the period of observation included weaning (Table 11), and in most cases enough records were obtained so that the effect, if any, of weaning on the weight curve could be ascertained.

Table 11. Age at Weaning for 37 Babies and Number for Whom Weight Records Before and After Weaning were Obtained, Bang Chan, 1952-54.

Approximate Age At Weaning	Number of Babies	
	Total	Weighed Before And After Weaning
(months)[1]		
5	1	0
9	1	1
11	1	1
12	8	4
13 - 14	5	5
16 - 17	2	2
18 - 19	8	7
20 - 22	7	6
25	2	2
28	1	1
36	1	1
Total	37	30

1. Because of the method of choosing children for study, the majority of those observed were under two years of age. We have no basis for judging what proportion of children in Bang Chan were breast fed beyond two years of age.

862 In Bang Chan infants less than a year old were seldom weaned. Of 3 such cases we encountered, the mother of one was ill with tuberculosis, and the other two mothers were again pregnant. Common answers to the question, "When should a baby be weaned?", were: "When it is a year old", or "At 1 1/2 years", or "When the mother is pregnant again." Mothers commonly nursed one infant until 3 to 7 months pregnant with the next. More than half of the children who were nursed longer than 18 months had no younger sibling during the period of this study.

Of 32 mothers who described the weaning procedure, 13 painted the nipples with boraphed or other bitter substance (lime or aloe), but an equal number said they did nothing. Six mothers gave other food instead of breast milk. In 4 cases cow's milk[1] was given; in one, bananas and (2)kha-(5)nom; and in one instance the food substitute was not specified.

Weaning in Bang Chan usually meant the end of milk feeding, but 5 babies in this series were given cow's milk feedings after weaning. These included the infant who was weaned at 5 months because of the mother's illness and two others who were weaned because of a pregnancy. The child who had been given cow's milk when the mother was away vending continued to have cow's milk at night, after weaning.

Beliefs About Foods for Babies.

853 Foods "Good For" Or "Not Good For" Babies. - In addition to
• 855 asking what foods were given the baby, we asked mothers (or
242 other informants) what foods they considered "good for" or "not good for" the baby. Informants were not prompted by asking about specific foods. The most usual answer was that the informant did not know or did not consider any food either especially suitable or unsuitable. Only 6 informants mentioned foods considered good for the baby (Table 12).[A] One of these named 3 such foods: egg, fish, and vegetables.

A larger number of informants reported that one or more foods were not good for a baby, but in a majority of instances (30 of 50 replies) the informant did not mention any food in this category. In all, 15 foods and 2 characteristics of foods

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1. No fresh milk of any kind was available in Bang Chan. Water buffaloes were ordinarily not bred in the village, and use of buffalo milk was unheard of. Among the light refreshments which could be bought at village stores, however, were coffee with condensed milk and diluted canned milk. Storekeepers stocked imported canned and dried milk including some brands designed for infant feeding. Directions for use were not in Thai, however, and the preparations actually fed to infants were often diluted more than recommended.

A [see p. 26 - Analyst]

("hot tasting" and "hard") were mentioned 39 times (Table 13) with jackfruit and chico being mentioned in connection with the same baby at both 6 and 9 months of age.

Table 12. Foods Considered Good for Babies.

Food	Number of Informants	Age of Baby at Time of Inquiry (months)
Rice	3	3, 15, 36
Egg	2	6, 15
Fish	2	15, 16
Vegetables	1	15

There was no indication that any food was considered harmful by most mothers. Although the list of foods considered not good for babies was considerably longer than the list of foods considered good for them, the item which occurred most frequently, jackfruit, was mentioned by only 6 informants. Eggs, vegetables, and fish were considered by some as good for the baby and by others as harmful (Tables 12 and 13).

Table 13. Foods Considered Not Good for Babies.

Food	Number of Informants	Age of Baby at Time of Inquiry (months)
Jackfruit	6	5, 6 and 9[1], 11, 18, 21, 22
"Hot tasting" foods	6	12, 14, 15, 24, 24, 27
Chico	4	6 and 9[1], 11, 21, 22
Egg	3	7, 11, 27
Sugar	3	9, 11, 12
Banana (ordinary "fragrant" type)	2	21, 22
Hard things	2	6, 10
Glutinous rice	2	9, 11
Fish	1	9
Fresh fish	1	15
Vegetables	1	6
Mango	1	6
Raw banana	1	6
Corn	1	18
Guava	1	18
Orange	1	15
"Ice"[2]	1	36

1. Mentioned for same child at both 6 and 9 months.

2. Either a frozen syrup or syrup over shaved ice.

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843 Reasons were seldom advanced for considering certain foods unsuitable for mothers or children. During pregnancy the hot-tasting foods, i.e. those made with chili, were said by one informant to injure the baby's complexion. When asked at what
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855 age a child could have adult food, mothers might say at one or two years but often specified, without giving a reason, that
853 they could have anything but the "hot-tasting" foods (foods seasoned with chili). Two mothers said the child could have "hot tastes" at one year, whereas one said not until the child was 3 years old. A majority did not specifically mention hot tasting foods either to include or to exclude them.

853 A reason given for omitting jackfruit from the diet during lactation was that it would cause diarrhea in the baby. One informant said that if a mother nursing a young baby 1 or 2 months old ate fresh vegetables, the baby would have diarrhea. Some informants said the "fragrant banana", (3)kluaj (5)hauaum[1], caused constipation in infants, others that it caused diarrhea, whether eaten directly by the infant or by the mother.

753 The belief that eggs would cause dental caries and should
262 therefore be omitted from children's diets was expressed by the
853 mother in a poorly nourished family of low economic status.
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862 Opinions varied as to when children could be given "adult food". This was often, but not always, the age considered appropriate for weaning. As the question was worded it apparently implied that the child "could eat food as prepared for adults in the family" and did not necessarily exclude breast feeding, since children who "could have adult food" might still be nursing. The age at which a child could have adult food was sometimes related to stage of maturity as "when he can sit", "when he has teeth", or "when he can say (1)plaa (fish)".

262 Traditional and Modern Concepts of Rice Versus "With-Rice" in the Diet. - Rice is not only the basis of the adult diet in Thailand, but it has traditionally been regarded as the strength giving food par excellence. A portion of Chutima's (1939) description of the "old system" of diet follows:

> "Our children and young women are forbidden by ancient doctrine from eating any fair quantity of animal products, but must eat plenty of rice which is considered as the only true food, the others being only appetizers. And to stimulate the palate, large quantities of hot and irritating condiments (chilies and peppers principally) are consumed at every meal.

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1. The type of banana most familiar to people in the U.S.A.

853 3 and 6 months soupy rice was a common addition to the infant's diet, and after the first teeth appeared many had rice from the family pot. Between 6 and 9 months, also, fish was given regularly to many babies and egg at least occasionally. Crackers, cookies, and various items designated as (2)kha-(5)nom were frequent additions at this age.

863 Seasonal fruit such as mango and orange was given to some
855 infants from 6 months on, but most children had fruits other
262 than the (4)mam-(4)waa banana infrequently even at two years of age. As the feeding of rice increased, banana was given less often, so that for the 2-year old child even banana was eaten only occasionally. A minority of babies were fed vegetables by one year of age, and some had not begun to eat them by two years. Only about half the children from 2 to 4 1/2 years old had vegetables frequently.

Avoidance of hot tastes, rather than reluctance to give vegetables, may have been responsible for late introduction of vegetables into the diet of many children. In Bang Chan vege-
[252] tables were often combined with other foods, as in curries. They were usually added toward the end of the cooking time after the mixture had been seasoned. Vegetables from such a "hot dish" would not be offered to a small child unless the parents considered him old enough to eat "hot-tasting" foods. Among the mild "with-rice" dishes were vegetables panned with a small amount of fat and seasonings other than chili, as well as vegetables cooked in coconut milk or in water (Hauck et al., 1958; Hauck and Hanks, 1959). In this connection the suggestion of a Thai co-worker that one might encourage eating more vegetables by discouraging the use of "hot" dishes seems promising, since a larger amount of mild than of "hot" "with-rice" food is eaten at one time. To promote more frequent, and earlier, feeding of vegetables to babies, one would need to encourage either more frequent preparation of mild "with-rice" dishes containing vegetables or special preparations of vegetables for the baby. The latter is rather impractical when foods are cooked one at a time over the same fire as in Bang Chan.

[252] Perhaps one reason why most infants in Bang Chan had fish
[263] daily after 6 or 7 months of age is that in making curries fish was often cooked in a little fat or coconut milk before seasonings were added. Thus, a little fish could then be set aside for the baby before chili and other spices went into the pot. (Note, also, that rice and fish were the foods considered safe to eat
121 during (2)juu (1)faj by all mothers interviewed). Changes in
262 food preparation suggested for improvement of the family diet in general (Hauck, 1958) could automatically help to improve the feeding of young children who are gradually introduced to adult foods. At the same time, a better family diet would probably help to improve the quality and quantity of mother's milk, since during lactation mothers tended to eat as usual. In deciding whether the more effective approach would be through teaching

about the same as the 3rd percentile of male infants in the U.S.A., and from one year on the values fell below the 3rd percentile. Norms for American children are inappropriate for use with Thai, but an increasing lag in growth such as we observed may be a matter for concern. 145.1 14

Weight Loss and Failure to Gain. - Many of the children in Bang Chan failed to gain or actually lost weight over periods of time. This occurred frequently between two weighings which were 1 to 4 months apart and occasionally when a child was reweighed after an interval of 6 months. In some children loss of weight or failure to gain extended over two weighing intervals. Such loss or failure to gain may be an important sign of malnutrition (Jelliffe, 1955). 145 [146]

Relation to age. - The ages at which the children experienced weight loss or failure to gain were determined by inspection of the weight-age graphs. As shown in Table 17, a period of loss of weight or stationary weight was noted for only one child below the age of 6 months. Between the ages of 6 and 12 months, a time when healthy infants usually continue to grow rapidly, such periods of weight loss or failure to gain for intervals of 1 to 5 months between weighings were observed in almost 40 per cent of the infants. Dr. Montri (1939) and Dr. Amara (1957) did not discuss the growth of individual infants, hence we do not know to what extent failure of some infants to gain weight may account for the depressed growth, on the average, which both of these observers reported for infants of this age.

During the second year of life children may be expected to gain weight less steadily, but more than 40 per cent of the children of this age in Bang Chan lost weight or failed to gain over intervals of 1 to 7 months.

After 2 years of age approximately one-half to two-thirds of the children weighed in a given 6-month period lost or failed to gain weight. Of 68 children who were weighed and measured over a period of a year or more, only 16 did not experience such loss or failure to gain between any two weighings. Most of these were in the youngest age group, only 3 were over 2 years old at the end of the study.

Possible reasons for failure to gain. - From the information available specific reasons cannot be given for the loss or failure to gain weight of so many of the young children of Bang Chan. Infection may have played a role, although we saw little evidence of severe infection and it was seldom mentioned. [164] Increased activity as children grow older might affect rate of gain at the toddler age. For safety very young children in Bang Chan were closely tended which meant that their activities were rather restricted. As they became older and learned to [855]

A [See p. 37 - Analyst]

keep out of danger, they had more freedom. At this time their caloric needs may have increased more rapidly than did their caloric intake. To the student of nutrition, inadequate intake of essential nutrients seems likely to be of importance when children fail to gain.

In some areas growth failure is common at weaning, but this did not seem to be a major factor in Bang Chan. Weaning before one year of age was uncommon (Table 11, p. 24), yet growth failure occurred in many infants between 6 and 12 months.

Observations on the weight gain of 30 children whom we weighed both before and after weaning are summarized in Table 18. Four children lost or did not gain weight between the weighing before weaning and the one afterward (code numbers 13, 23, 35, and 56), while 3 others, who had been weaned shortly before a weighing, did not gain between the next two weighings (code numbers 22, 33, and 37). Thus only 7 of 30 children lost or failed to gain weight at or near the time of weaning (Table 18, I).

Weight curves of 4 children could not be interpreted in relation to weaning. Two of these (code numbers 15 and 44) were weaned just before their last weighing; for two others (code numbers 18 and 51) the intervals between weighings were long (Table 18, II). Only 5 individuals gained at each successive observation (Table 18, III), whereas 18, a majority, failed to gain at some period other than at weaning (Table 18, III and individuals designated *).

Of 19 other children who had not been weaned by the time the study ended, 10 lost weight or failed to gain at some period during the study.[1]

Since Thorangkul (1957) noted a clear association with season of weight loss or failure to gain in Bang Chan school children, the weight records of infants and young children were inspected to see if such an association occurred at younger ages also. The number of children weighed during each month and the number who had lost weight or had failed to gain since the previous weighing were counted after omitting observations on children under 6 months of age, as well as those whose most recent weighing had been obtained more than 4 months previously. Little or no indication of relation of season to weight loss or failure to gain was apparent. At the weighings in April, July, August, and September, 1953, a smaller proportion of the children had lost weight or failed to gain; but this is not

1. Of the 22 other children in the study, 20 had been breast fed but were weaned before the study began, and 2 were receiving cow's milk because of death or illness of their mothers.

[TEXT CONTINUED ON PAGE 46]

[See p 44 - Analyst]

4:Phillips E-4,5 (1956-1957) 1966
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Bang Chan

were at first a series of unrelated incidents—that is, the possible tenuousness of the links between parent and child first came to my attention with the occasional, but wholly unselfconscious, reports from informants on what to my Western ears seemed like rather turbulent childhoods: their frequent movement from family to family while they were still children and their own care, as adults, of friends' or relatives' children. (This suspicion was reinforced and partially verified later while recording life histories). Later it was noticed that, in sharp contrast to the West, villagers tend to be less concerned about the illness of children than the illness of adults; informants with whom this observation was discussed said either that they had not noticed or explained it by saying that since children recover so quickly from sickness there is less need to worry about them. Finally and perhaps most important, it became clear that the request of the villager who stopped me and asked me to take and rear her child was by no means idiosyncratic; the request was made on four separate occasions by different individuals, both within and without Bang Chan. The intent of these requests were difficult to ascertain. Since the requests tended to come up rather suddenly, in the presence of the child, and were always accompanied by laughter, they may well have been said in "jest" or as a threat to the child. On a few occasions the parent took pains to be sure the child understood what was being said, in which case the child responded with screaming. Also, Europeans have traditionally been used as bogey men in the disciplining of children. (I myself have occasionally been addressed as a malevolent spirit by youngsters.) On the other hand, because children of poor families have been known to be given to individuals of high status, and because Occidentals are automatically assigned such status, it is not altogether unlikely that the parent was sounding me out as a potential patron of the child.

The problem with all the above, however, is that it was unknown to what extent they represented typical or deviant attitudes and responses. The Sentence Completion item, *"We want to give our child to him because . . ."* was selected for use in the SCT administered to a larger, representative sample of villagers because, being an extreme phrasing of these attitudes, it might shed light on the villagers' general readiness to accept them as well as their justifications for them. Of the fifty-six informants who responded to the item, 79 percent accepted the premise and 21 percent rejected it, *i.e.*, "I do not want to give my child to anybody." Of the forty-five individuals who accepted the premise, nineteen said it was good for either the child or the parent, *i.e.*, "that person was good, and he wanted that person to teach his child to be good"; "I would get some money by giving it away"; "I could not stand the child anymore." And eighteen said it was justifiable, *i.e.*, "because of poverty"; "I did not have the means to rear the child."